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- Hesser, J. M., Assistant Manager Communications & Signals

 - Train-stop criteria for hotbox detectors, Nov 22

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Define principles outlined by C&S Section AAR, Mar 18
Halts modulation controls for signaling, Nov 28
Impact on signal and communications facilities described at ASME/IEEE meeting, May 21
Signal spending in 1970 to hit \$45.4 million, Jan 22
35 foreign railroads report plans to spend \$270 million in '70, June 43
Whitman, Reginald N., Administrator FRA talks about signals and safety, June 39
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Block signals and traffic control, Jan 28
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 Simpson Electric Co.
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 Computerized car tracing (Xenex Corporation) Sep 56
 Western Union awards contract for software to upgrade company facilities, Feb 41
 Soo Line
 Plan to participate in the General Managers Assn. ACI interchange and information network, Aug 27
 Southern Pacific Communications Co.
 FCC swamped with requests to provide proposed microwave services, June 45
 Interconnection units should be certified, Nov 34
 Opposes Datran request to build microwave system, Aug 10
 Supports FCC data decision, Aug 11
 Southern Pacific Transportation Co.
 Cetinich, J. N., Manager Analytic Services
 Network model is in final stages, Sep 50
 Computer program simulates large heavy loads moving over rail lines, Apr 40
 Electrification study made, Mar 16
 Forms communications subsidiary Dec 12
 Germany, J. W., General Manager System Management Services
 Communications/computer systems will be exploited by railroads, Oct 31
 Honeywell DDP-516 process control computer in automatic classification yard at Eugene, Ore., July 16
 How information retrieval systems operate, May 26
 IBM 1800 process control computer in automatic classification yard at Houston, Tex., July 16
 Looks at electrification between Colton, Cal., and El Paso, Tex., Oct 43
 Microwave will be extended to East St. Louis, Feb 41
 Plans to file for communications net, Feb 39

Spence, R. D., Vice-President System Operations
 Efficient transportation needs C&S efforts, Oct 18
 Waybill data received fast from video tape system, May 24
 Will upgrade signals; remove ATS, June 41
 Southern Railway
 Clayton, W. Graham, Jr., Pres.
 Management involvement in systems and computer activity, Oct 28
 Four railroads share car movement data, Sep 68
 Hewett, H. M., Communications Engineer
 Radio control is helping locomotives, Oct 23
 Installs new interlocking in CTC at Birmingham and between Ludlow, Ky. and Chattanooga, Tenn., Feb 40
 Jones, John L., Vice Pres., Management Information Services
 Efficiency upped via EDP, May 27
 Management involved in EDP, May 30
 Pace, N. C. Assistant to vice-president communications
 Train-stop criteria for hotbox detectors, Nov 22
 SPLC (Standard Point Location Code)
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 Stewart-Warner Electronics
 Receives BART \$5 million information systems contract, Nov 34
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 Stokes Molded Products
 Third rail guard, Jan 47
 Stromberg Carlson Corp.
 B&O installs electronic switchboard at Cumberland, Md., Dec 40
 Dispatchers, phone circuits and 4-wire switching installed on Illinois Central, Apr 16
 Enlarged telephone network on Burlington Northern, Dec 13
 New telephone switchboard on B&O, Dec 12
 PATCO runs rapid transit trains automatically, Mar 28
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 Detector, switch point (General Railway Signal Co.) Feb 36
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 Sylvania Electric Products Inc.
 Contract for 18 KarTrak ACI systems awarded by Detroit, Toledo & Ironton, Oct 43
 KarTrak ACI installed in Brussels, Belgium subway, Feb 32
 Low light level TV has railroad use, Sep 68
 MP purchases five ACI scanners, Jan 35
 Order for ACI system received from Canadian National, Aug 11
 Santa Fe awards contract for 9 ACI systems to Commercial Electronics Div., Nov 34
 Syntonic Technology Inc.
 Expands service via acquisitions, June 40
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 System Control
 Illinois Central moves controls to headquarters for efficiency, Apr 13
 System Engineering
 General Managers Association of Chicago ACI interchange and information network, Aug 28
 TAB Books
 Electronic Circuit Design Handbook, 3rd edition, Aug 37
 Electronic Test & Measurement Handbook, 2nd edition, Aug 37
 1970 Popular Tube/Transistor Substitution Guide, July 44
 Solid-State Circuit Design & Operation, July 44
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 Tele-Dynamics, Division of Ambac Industries Inc.
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 Communications spending rises, Dec 11
 Dial selector (Secode Electronics) June 35
 Illinois Central extends direct distance dial service, Apr 16
 Penn Central ups capacity to handle phone calls, June 39

Rock Island extends direct dial phones, Feb 40

Selective signaling (Wescom Inc.) Sep 56

Switching processor (Stromberg-Carlson Corp.) Feb 36

Telemat automatic dialer (Kameco Electronics Ltd.) September Product Showcase

Tone-pulse selective calling (Flat-General) Sep - Product Showcase

Touch-tone receiver modules (Bramco Controls Div. Ledex Inc.) Sep 65

Teletypers, Jan 25

Teletype Corporation

- Computer I/O units used by WP, Jan 18
- Detroit & Toledo Shore Line has realtime computing, Dec 22
- Illinois Central yards and offices report via teletype, Apr 16
- I/O units at Santa Fe automatic classification yard at Argentine, Kansas, July 12
- Magnetic tape data terminals, Sep - Product Showcase
- Magnetic tape terminals, Aug 34
- MP tests ACI at Dupo, Ill. yard Jan 32
- Printer provides readout from ACI test site for Computer Identic, Sep 19
- TWX plus Telex equals more competition, June 40

Television

- CCTV camera (Motorola Communications & Electronics Inc.) Sep - Product Showcase
- Light amplification techniques uses low light level, Sep 68

Telpak

- Has interest for AT&T railroads Feb 8
- Rate increases effective Feb. 1, Mar 32
- Rate situation before FCC, Dec. 12
- Rates are now competitive, July 34
- Sharing order stayed up to 90 days, Nov 34

Terminal Systems Inc.

- Developing and marketing piggyback terminal controls systems for IC, July 34

Test Equipment

- Data terminal interface test set (Dataprobe Inc.) Aug 34
- Digital instruments bulletin 368B (Simpson Electric Co.) July 36
- Environment monitors (Western Union Computer Utilities) Nov 30
- Leak detector (E.F.I. Inc.) Nov 30
- Meter/signal generator (The Singer Co.) Sep 63

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Monitoring device (Pulse Communications Inc.) Sep 67

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Spectrum analysis on open wire carrier on Union Pacific to measure interference from high voltage direct current, Dec 31

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Texas Instruments

- Low light level TV has railroad use, Sep 68

TOFC/COFC

- Label rules for ACI to be eased, July 35

Track Circuits

- Insulated joint checker (Harmon Electronics Inc.) July 36
- Oscillation of wheels effects track shunting, Apr 30
- Shunting system (W. T. Cox Co.) Jan 47
- Shunting tested on electrified suburban line in Australia, Apr 18
- Track circuit (Westinghouse Air Brake Co., Signal & Communications Div.) July 37

Traffic control system (See CTC)

TRAIN (Tele-Rail Automated Information Network)

- ACI freight car labeling, Oct 32
- Transitel Computer Support Systems Div. of Sangamo Electric
- Moves to Denver, Colo. Aug 11

Transistor Electronics Corp.

- CRT terminal, Jan 46

Transport Products Co.

- RACO celebrates 50th anniversary, Sep 54

Trepac Corporation of America

- Telegraph relay, June 34

Trepac Corporation, Datatone Div.

- Datatone RTCT, Dec 39

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- Volt-ohm milliammeter, Sep 66

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UMLER (Universal Machine Language Equipment Register)

- ACI freight car labeling, Oct 32

Union Carbide Corp.

- Primary batteries, June 35

Union Pacific Railroad

- Conducts tests on open wire communications line in vicinity of HVDC transmission line in Oregon and Washington, July 20
- Electrification study made, Mar 16
- IBM 1800 process control computer in automatic classification yard at North Platte, Neb., July 16
- Jorgensen, J. L., Director Management Information Services
- Discusses data exchange, Oct 29
- Radio on rolling stock replaced July 42
- Robertson, Hugh M., Asst. to Supt. Communications
- HVDC transmission line ready for service on Pacific Coast, July 18
- HVDC transmission may cause interference to communications circuits, Dec 28

United Business Communications Inc.

- Multiplex, Sep 60

United States Motors Corporation

- Micro power system, Feb 36

United States of America Standards Institute

- USA standards for communications and computer control 10 terminal specs issued by AAR, Sep 47

Univac Corp.

- Detroit & Toledo Shore Line has realtime computing, Dec 22
- Model 1107 and 1108 computers to handle AAR network model, Sep 51
- Order received from Great Northern, Apr 36

Varian Data Machines

- Optical reader, Dec 39

Vapor Corporation

- Transportation sales reorganized, July 34

Vapor Corporation, Rail & Transit Division

- Renamed Transportation Systems Division, Feb 8

Victor Comptometer Corp.

- 820/03 terminal, Sep - Product Showcase

Victorian Railways

- Track circuit shunting tested on electrified suburban line, Apr 18

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- How information retrieval systems operate, May 26
- Southern Pacific gets waybill data fast from video tape system, May 24

Video Systems Corporation

- Video terminal, Sep 62

WABCO, Signal & Communications Division
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 Italian affiliate plant to manufacture signaling items near Turin, Italy, June 42
 Italian subsidiary receives \$8 million order placed by Yugoslavia, Aug 11
 Order received from Burlington Northern for 30 radio units, Aug 11
 PATCO runs trains automatically to serve Philadelphia, Mar 24
 Received contract for Coney Island yard controls from NYCTA, Apr 36
 Solid-state radio units ordered by Seaboard Coast Line, Mar 33
 Supplies equipment for radio installation on 30 locomotives of Seaboard Coast Line, Aug 11
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 Two-way radio sets ordered by C&O/B&O, Mar 32
 VHF base station control for D&RGW, Feb 29
 Yard switch machine, Oct 38
 Washington Metropolitan Transit Authority
 Train control system out for bids, Aug 11
 Wescom Inc.
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 Western-Cullen Division, Federal Sign & Signal Corp.
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 Western Electric Co.
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 Microwave in service Sacramento-Portola, Cal., Nov 27
 Western Union Computer Utilities Inc.
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FCC issues directive to clear the way for Western Union to acquire Bell Systems teletype exchange service in 1971, Oct 43
 Forms new company for data services, Aug 10
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 Seeks full hearing on Datran microwave systems, Aug 10
 Western Union Telegraph Co.
 Awards contract for software services, Feb 41
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 Telpak sharing argument heard by FCC, Mar 32
 TWX plus Telex equals more competition, June 40
 Will buy Bell System's Teletypewriter Exchange Service, (TWX) Mar 33
 Westinghouse Air Brake Co. (See WABCO)
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 BART controls "dry run" tested, May 13
 Hoyler, R. C. Advisory Engineer, Vehicle Systems Projects
 Advocates advantages of improved technology, Mar 19
 Kalra, R.P.S., Communications & Control
 Automatic train stopping has been developed for rapid transit, May 18
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 Television camera, Dec 38
 Thorne-Booth, G.M., Manager Communications & Control
 Automatic train stopping has been developed for rapid transit, May 18
 Trains can reach 300 mph from 3rd rail pickup, Jan 43
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 Wheel oscillation effects track shunting, Apr 30
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 Automatic yards have process controls, July 12
 Canadian National connects ACI to mini-computer, Dec 14
 Car braking system to be tested by Japan National Railway, Aug 10
 Classification yard upgraded with new master retarder on L&N, Aug 13
 CTA installs bus monitoring system, July 26
 General Electric GE/PAC 4000 process control computer in automatic classification yards of Alton & Southern at East St. Louis, Ill., July 16
 General Electric GE/PAC 4020 process control computer in automatic classification yards of Burlington Northern at Pasco, Wash., July 16
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 Honeywell DDP-516 process control computer in automatic classification yard of Burlington Northern at N. Kansas City, Mo., July 16
 Honeywell DDP-516 process control computer in automatic classification yards of Canadian Pacific Railway at Calgary, Alta., July 16
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 Honeywell DDP-516 process control computer in automatic classification yard of Santa Fe at Argentine, Kan., July 16
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MP upgrades communications for MIS, Feb 41
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 Penn Central automates Columbus, Ohio classification yard, Sep 14
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Eiland, Arthur C., Jr., July 40
Elkins, James D., Jan 40
Ellis, W. B., Jan 40
Elmen, J. Fred, Dec 45
Elpel, J. L., May 38
Erickson, Frederick G., June 37
Erickson, Willis E., May 40
Esmay, A. L., July 40, Oct 34*
Evanoff, W. H., Feb 43
Evans, R. E., Aug 38
Evans, Thomas H., May 39*
Eveland, E. T., Oct 34
Eyler, Leonard R., Aug 40

Paris, M. E., May 38
Farrell, A. W., Feb 44
Finch, J. M., Jan 40
Finnell, Paul D., Jan 40
Fish, Robert C., Mar 34*
Fisher, W. R., July 41*
Flanagan, Paul, Aug 38
Forsha, Jack R., Aug 40
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Franklin, L. J., Aug 38
Freeman, G. W., Aug 38
Fuller, John H., Feb 44

Gaps, J. J., Jr., May 38
 Gardiner, John C., June 37
 Garrett, E. O., July 41
 Garrison, V. L., Mar 34
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 Gerber, Jack B., Mar 36
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 Gilbert C. W., May 40
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 Grant, Clifton P., Dec 44
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 Greenberg, William L., Apr 32
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 Hammond, John L., May 38
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 Harmon, Robert E., Feb 44*
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 Hart, Edward J., Feb 44
 Hart, W. M., Jr., July 40
 Harvey, Jerome A., Oct 34
 Harwell, J. A., Aug 38
 Hathaway, H. L., May 40*
 Haupt, Wayne, Jan 40
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 Hedding, L. K., May 40*, July 41
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 Helgeson, Andrew L., May 38
 Henricks, Carl L., Feb 44*
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 Hensel, John (obit) Dec 45
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 Herr, J. M., Aug 38
 Hesterley, John M., Feb 43
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 Hinton, Herbert L., July 40
 Hirandani, Hiro R., Dec 44
 Hosgland, J. L., Aug 38
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 Holby, James C., May 39
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 Horton, Carl L., Feb 43
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 Hubbard, Allen III, July 41*
 Huffman, D. D., May 40*
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 Hungerford, C. Jr., July 40
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 Larson, John I., Apr 32*
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 Youngblood, J. W. June 37

Zabrockas, Frank W., Oct 34
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